

In the claims:

1. An assembly capable of moving a passenger from a first surface to an adjacent second surface wherein the surfaces are located at different vertical levels, the assembly comprising an electrical system;

5 a platform moveable to transport the passenger between the surfaces, the platform having an inboard end, an outboard end, and two opposing sides, the inboard end closer to the first surface than the outboard end;

an arm coupled to the platform and to the first surface, the arm moveable through a first path to transfer the platform between the surfaces;

10 a passenger support located above the platform;

a safety restraint system coupled to the passenger support, the safety restraint system comprising:

a belt coupled to the passenger support in a first location;

15 a buckle releasably engagable with the belt and coupled to the passenger support in a second location, the buckle having a current path coupled to the electrical system of the motive source, the current path having an open state and a closed state defined in part upon the releasable engagement between the buckle and the belt, the current path closed upon engagement between the buckle and the belt; and

20 a motive source coupled to the electrical system and operable to move the arm through the first path, the motive source incapable of initiating movement of the arm when the current path is open and capable of initiating movement when the current path is closed, the motive source capable of continuing movement of the arm regardless of the current path state once movement is initiated.

2. The assembly as recited in claim 1, wherein the platform further comprises
25 side barriers located near the opposing sides and a roll stop located near the outboard end.

3. The assembly as recited in claim 2, wherein the roll stop is biased between two positions, the first position allowing items to be rolled on or off the outboard end and the second position preventing item from rolling on or off the outboard end.

4. The assembly as recited in claim 1, further comprising a bridge plate pivotally coupled to the inboard end of the platform and positionable to bridge a gap between the platform and the first surface.

5. The assembly as recited in claim 1, further comprising an articulated lever assembly coupled to the platform, the lever assembly capable of moving the platform from a substantially horizontal position to a substantially vertical position.

6. The assembly as recited in claim 5, further comprising a pressure switch coupled to the platform, the pressure switch prevents the platform from moving to the vertical position when the passenger is on the platform.

7. The assembly as recited in claim 1, wherein the motive source comprises a hydraulic pump in fluid communication with a hydraulic cylinder coupled to the arm.

8. The assembly as recited in claim 1, wherein the safety restraint system further comprises a current flow control device coupled to the current path, the current flow control device comprising an silicon controlled rectifier diode that controls current flow to the motive source.

9. The assembly as recited in claim 1, wherein the safety restraint system further comprises a lock coupled to the buckle and the belt, the lock preventing disengagement between the belt and the buckle during movement of the platform.

10. The assembly as recited in claim 1, further comprising an alarm coupled to the safety restraint system, the alarm operable to indicate disengagement between the buckle and the belt.

11. A safety restraint system usable with an electrically operated lift system, the safety restraint system comprising:

a belt; and

a buckle releasably engagable with the belt and having a current path coupled to the electrically operated lift system, the current path having an open state and a closed state defined in part upon the releasable engagement between the buckle and the belt, the current path closed upon engagement between the buckle and the belt, the electrically operated lift system incapable of initiating movement when the current path is open and capable of initiating movement when the current path is closed, the electrically operated lift system capable of continuing movement regardless of the current path state once movement is initiated.

12. The assembly as recited in claim 11, wherein the safety restraint system further comprises a current flow control device coupled to the current path, the current flow control device comprising a silicon controlled rectifier diode that controls current flow to the electrically operated lift system.

13. The assembly as recited in claim 11, wherein the safety restraint system further comprises a lock coupled to the buckle and the belt, the lock preventing disengagement between the belt and the buckle during movement of the platform.

14. The assembly as recited in claim 11, further comprising an alarm coupled to the safety restraint system, the alarm operable to indicate disengagement between the buckle and the belt.

15. A lift mountable onto a vehicle for transporting a passenger between the floor of the vehicle and the street, the lift comprising:

a platform coupled to the vehicle and moveable between the floor and the street, the platform having an inboard and an outboard end, the inboard end closer to the first surface than the outboard end;

a linkage defined in part by two arms pivotally coupled between the platform and the floor, the arms of the linkage moveable through a range of motion;

an electrically operated drive system coupled to the linkage and actuateable to move the linkage through the range of motion;

a pair of handrails coupled to the platform;

a buckle coupled to one of the pair of handrails;

a belt coupled to the other of the pair of handrails and removeably engaged with the buckle, the buckle and the belt having an engaged state and a disengaged state; and

5 a user manipulable switch coupled to the electrically operated drive system, the switch having an open condition and a closed condition, the drive system incapable of initiating actuation when the switch is in the closed condition and the buckle and belt are in the disengaged state, the drive system capable of initiating actuation when the switch is in the closed condition and the buckle and belt are in the engaged state, and the drive system
10 capable of continuing actuation once begun when the switch is in the closed condition and the buckle and belt are in the disengaged state.

16. The assembly as recited in claim 15, wherein the platform further comprises a roll stop located near the outboard end, the roll stop is biased between two positions, the first position allowing items to be rolled on or off the outboard end and the second position
15 preventing items from rolling on or off the outboard end.

17. The assembly as recited in claim 15, further comprising a bridge plate pivotally coupled to the inboard end of the platform and positionable to bridge a gap between the platform and the vehicle floor.

18. The assembly as recited in claim 15, further comprising an articulated lever
20 assembly coupled to the platform, the lever assembly capable of moving the platform from a substantially horizontal position to a substantially vertical position.

19. The assembly as recited in claim 18, further comprising a pressure switch coupled to the platform, the pressure switch prevents the platform from moving to the vertical position when the passenger is on the platform.

25 20. The assembly as recited in claim 15, wherein the drive system comprises a hydraulic pump in fluid communication with a hydraulic cylinder coupled to the linkage.

21. The assembly as recited in claim 15, further comprising a current flow control device coupled to the electrically operated drive system, the current flow control device comprising an silicon controlled rectifier diode that controls current flow to the drive system.

22. The assembly as recited in claim 15, further comprising a lock coupled to the buckle and the belt, the lock preventing disengagement between the belt and the buckle during movement of the platform.

23. The assembly as recited in claim 15, further comprising an alarm coupled to the buckle, the alarm operable to indicate disengagement between the buckle and the belt.

24. A method of moving a passenger between the ground and a vehicle, the method comprising:

moving the passenger onto a platform coupled to the vehicle;

buckling a seatbelt about the passenger;

actuating a switch to operate an electrical motive source coupled to the platform, the motive source inoperable to move the platform from an at rest position without the seatbelt fastened and operable to move the platform from an at rest position with the seatbelt fastened, the motive source capable of being continually operable as the platform is moving regardless of the seatbelt being fastened;

powering the motive source;

lifting the platform and the passenger between the ground and the vehicle; and

moving the passenger off the platform.